

What is claimed is:

1. A system for determining the location of a radiotelephone from which a call to an emergency telephone number is made, the system comprising:

a mobile switching center;

at least one base station, wherein the at least one base station is in communication with the mobile switching center;

a plurality of wireless transmission antennas, wherein each wireless transmission antenna is in communication with one base station;

a location processor, the location processor being in communication with the mobile switching center; and

a plurality of radio direction finding devices, one radio direction finding device being installed adjacent a wireless transmission antenna,

wherein the location processor is capable of determining the location of the radiotelephone through triangulation calculation.

2. The system of claim 1, wherein the radio direction finding device further comprises

a radio direction finding processor;

a receiver connected to the radio direction finding processor; and

a plurality of antennas, wherein the plurality of antennas are controlled by the radio direction finding processor.

3. The system of claim 2, wherein the radio direction finding processor samples sequentially the plurality of antennas for radio signals.

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4. The system of claim 1, wherein the mobile switching center communicates the information related to an emergency radio signal to the location processor.
5. The system of claim 1, wherein the plurality of wireless transmission antennas use CDMA technology.
6. The system of claim 1, wherein the plurality of wireless transmission antennas use TDMA technology.
7. The system of claim 1, wherein the plurality of wireless transmission antennas use FDMA technology.
8. The system of claim 1, wherein the plurality of wireless transmission antennas use GSM technology.
9. A method for determining the location of a radiotelephone from which a call to an emergency telephone number is made, the method comprising:
  - receiving radio signal information related to an emergency call from a mobile switching center;
  - receiving a location request from a mobile switching center;
  - sending radio signal information to a plurality of radio direction finding devices;
  - receiving angular information from at least two radio direction finding devices;
  - employing a triangulation method to calculate the location of the radiotelephone;
  - and
  - transmitting information about the location to the mobile switching center.
10. The method of claim 9, wherein the radio signal information includes radio frequency.

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determining a best pair of geographical coordinates by averaging geographical coordinates.